amidst the dense foliage of the forest, and at a loss in what direction to turn, we sought an open space and searched for the Casuarina trees, and in this manner were attracted to the desired spot. On the edge of the crater and about the sides of the cone amidst the grass, I picked up shells, (helix?) pieces of indurated clay, quartz, and clay intersected with spar. They all go to show the character of the disrupted material The edge of the crater was most uniform, and its diameter was about twelve feet. Its interior was filled with warm liquid mud, and on plunging down a rod, it passed on for about eight feet, and then struck in a thick plastic substance. After examining it in all directions, and satisfying our curiosity to the utmost, we hastened to return, and at length succeeded in reaching the boats, highly gratified and delighted at the success of our adventure, and the interesting novelty which it had unfolded to us.

I left Kyok Phyoo much pleased with the peculiar and many various features which it presents, and returned to Calcutta after an absence of three weeks, much improved in health by the excursion.

Description of some Ancient Gems and Seals from Bactria, the Punjab and India.

1. GRECIAN.

Whether it is, that the collection and study of ancient gems and seals, is less interesting in itself than the study of coins, or that it leads to less immediate and satisfactory results, I am unable to say; but perhaps both of these reasons may have combined to render the one less attractive than the other. But whether from one or from both of these causes the effect has been the almost total neglect of this study in India; although the specimens scattered amongst the numerous individual collections must now be valuable, as well as easily accessible. Some of these I have collected together in the accompanying plate, in the hope that others may be induced to make public what they may have stored up in their cabinets.

The earliest notice of an ancient gem procured in India, of which I am aware, is in Vincent's Ancient Commerce, vol. 2, p. 760, where he makes mention of 'an emerald belonging to the Archbishop of York, engraved with a Medusa's head, of Grecian sculpture, and brought from Benares.' And in the Trans. of the Royal Asiatic Society vol. 3, page 139, there is an engraving of 'an ancient Hindu intaglio,' with a long rambling description, by Colonel Tod. The gem itself is a beautiful one, representing Hercules

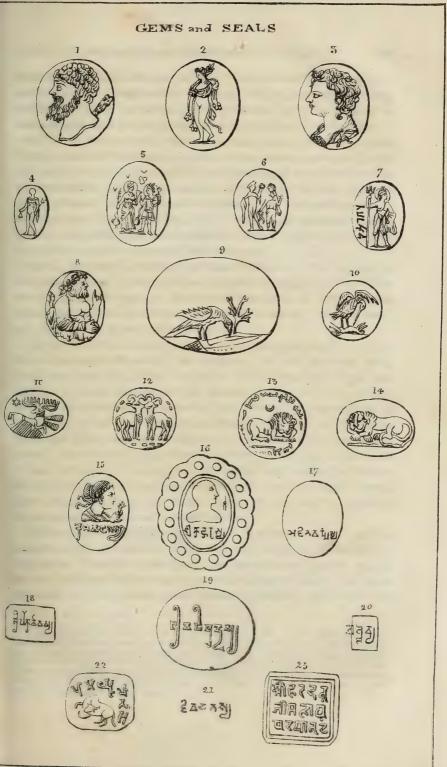
naked, his head diademed, leaning his left hand on his club, and holding out in his right hand a little figure of victory, which is extending a wreath towards the hero; to the right are two Sanscrit letters, one above the other, in the same position, and apparently of the same age, as those we see on the coins of the Guptas, forming the word Aja; which is probably only a monogramatic contraction for Ajaya, the invincible, a very appropriate epithet for the ever victorious Hercules.

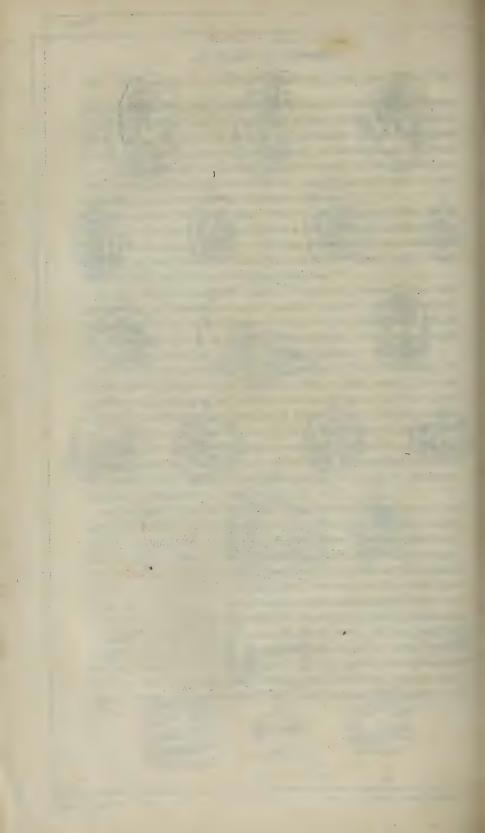
I have no doubt that many other notices of ancient gems procured in India may be found with a little search; but I have neither the time to look for them, nor the ability to elucidate them, should my search be successful; and I therefore trust that the brief remarks, which I am about to make, may be received with indulgence.

- No. 1. Brown translucent agate, procured at Benares. Bare and bearded head of Hercules to the left, his hair short and curling; his great strength shown by his short brawny neck; and his club placed behind his head. This seal is of beautiful workmanship, and in exceedingly bold relief and the engraved parts are highly polished.
- No. 2. In Colonel Stacy's collection, purchased, I believe, at Delhi. It represents Omphale standing, inclined to the left, and bearing the club and lion's skin belonging to Hercules; she having given him her distaff and bright colored robe in exchange for them. The engraving of this gem is well-done, but it is not in my opinion at all equal to the other—and yet her air of fancied strength assumed with the spoils of the Nemean lion, and the hero's club, is capital; and the making her grasp the club with both hands, displays at once both the woman's weakness, and the nice observation of the artist.

As these gems represent mythological persons of ancient Greece, they must have been brought into India from the North West, and as many gems are yearly discovered in ancient Bactria, I have little doubt that these, and indeed all gems purchased in India which bear Grecian subjects, must have come originally from ancient Bactria, the seat of the nearest Grecian colony, and where we know, from the beauty of the earlier Bactrian coins, that the arts must have flourished in the greatest perfection.

If these gems then owe their origin to Bactria, it is not improbable that the two just described may have been engraved during the long and prosperous reign of Euthedymus, all of whose gold and silver coins, yet discovered, bear the figure of Hercules; for it is but natural to suppose, that a Prince, who for so long a time exhibited this deified hero upon his coins, would likewise have had the head, the figure, and even the history of the





same personage engraved upon his seals.* Such at least is my opinion, which is greatly strengthened by the beauty and depth of the engraving, and by the peculiar mode of representing the short curly hair, which is the very same style that we see upon the tetradrachms of Euthydemus.

- No. 3. A red cornelian, much worn and slightly fractured below, having a bare youthful head to the left, with a scarcely perceptible beard and long curling hair, with the chlamys fastened upon his shoulder. The execution of this seal is very beautiful; and the relief is bold, deep and highly polished. It was procured at Lucknow, but I am not sure that it may not owe its origin to modern Europe; the antique chlamys, however, gives it a delightful claim to be considered ancient, which the beauty of its workmanship makes me unwilling to dispute.
- No. 4. A small red cornelian, purchased at Amritsir. Its execution is very inferior, and shows that it must belong to a declining period of the arts in Bactria. It represents Mercury half turned to the left, with his chlamys or short cloak over his shoulders, his caduceus in his left hand, and an undecided object in his right hand.
- No. 5. A Súlimáni, or light brown translucent agate, having a middle layer of milkwhite chalcedony, from Benares. It is of excellent make, but is very much worn, only a few strokes of a long inscription being now visible. On it are represented two standing figures, male and female. The female to the left is clothed to the feet, her head is surmounted by a basket, and encircled by a halo—she holds in her left hand a cornucopia, and in her right a torch, under which is an undecided object, resembling a bird. To the right the male figure is clothed to the knees,—his head dress is surmounted by a pair of wings, and his head encircled by a halo: he holds a trident in his left hand, and his right hand is raised towards the cornucopia held by the female figure. Between the two figures is a pitcher, and over them an indistinct object.

The two figures on this gem are, I believe, from their peculiar emblems and attributes, Osiris and Isis, or the Sun and Moon, as deified by the Egyptians. Though the worship of these divinities was popular enough in later Rome, yet I think it was never so amongst the Greeks, and more especially not amongst the distant Greeks of Bactria; wherefore I am

^{*} Since writing the above, I have received from Capt. Hay, impressions of two copper coins of Demetrius, both of which have the head of Hercules bare and bearded as on this seal, and with the club behind the head. I am therefore inclined to believe that the bare and bearded head on the copper coins of Euthydemus is that of Hercules. The discovery of these coins of Demetrius bearing precisely the same type as the seal, in my opinion almost confirms the correctness of what I have advanced as to the period when this may have been executed.

led to suppose that this stone may have been engraved in Egypt during the fostering and happy government of the earlier Ptolemies.

- No. 6. A red cornelian, of barbarous execution. Two standing figures, male and female, with a cross between them, the male figure holding up a wreath in his left hand. Though this is probably the work of modern days imitated from an antique, yet many seals of equally barbarous workmanship are yearly found in ancient Bactria, all of which most probably belong to the latest period of the Grecian dominion in that country.
- No. 7. A white cornelian of milky hue, very thick and round, having a hole pierced from the top to the bottom. It represents a male figure standing to the front, his face turned to the right, he is clad in the Indian dhoti, and wears the sacred thread across his breast; flames spring from the top of his head, which is encircled by a halo. In his right hand he holds a trident, and in his left hand, which is placed on his hip, he carries a lota, or drinking vessel; and a loose robe, or chadr hangs over his left arm. Legend to the left in Bactrian Pali characters Phany which is probably some compound of jas (Sanskrit und) fame; such as Jasvatisa (for under the renowned.

This beautiful gem came from Cabool: the execution is good, and the design graceful; the position of the body is easy and unrestrained; the limbs are free, and the outline of the figure and the folds of the drapery are naturally and simply expressed. The figure is the same as that we find on the coins of the Indo-Scythian Kadphises, excepting that the face is turned in a contrary direction. The Indian dhoti, and the sacred poita of the superior castes are so distinct on this gem, that I cannot hesitate in ascribing its origin to India, and in assigning it to the period when the Indo-Scythian Kadphises reigned over the Punjab and Cabool. In execution this seal is decidedly equal, if not superior, to the finest gold coins of Kadphises, and I cannot therefore be far wrong in attributing its age to the reign of that Prince, who must have flourished before Kanerka; for the money of the latter became the type of several series of the Indian coins down to so late a period as the Mahomedan invasion: while the coins of Kadphises were not imitated except by his immediate succes sors, who may have issued the barbarous gold coins with a man and bull on the reverse, (see Figs. 45, pl. 38, vol. 4, J. A. S. of Bengal.)

On a few gold specimens, and on all the copper coins of Kadphises, the figure which we see on this gem, is represented standing before a bull, and not alone, as on the commoner gold coins of that Prince; and this is also the way in which the Deity is placed on the gold and copper coins of the

unknown prince, noticed above as being one of the successors of Kadphises. On those coins we invariably find the legend OCPO, which is no doubt the name of the figure; and consequently we may pretty safely take this word OCPO to be the equivalent of the Bactrian Pali legend of the gem. Now Professor Lassen has happily explained Okro, by Ugra, a name of Siva, of whom indeed the trident and the sacred bull Nundi, are peculiar and unmistakeable attributes: and hence it follows that the figure on the seal must be that of the God Siva.

No. 8. A Cameo, in the collection of Sir Alex. Burnes, of most admirable workmanship, in bold and beautiful relief. It represents a half length of Silenus to the right; his head bald and bearded, and bound with a wreath of vine leaves; with a flat nose, sparkling eye, and laughing, all betokening the merry companion of Bacchus. He is holding up his left hand before his face with the fore-finger, and little finger raised, and in his right hand he is carrying his drinking can in a sloping direction. A thyrsus is placed behind him, and his robe is thrown over his right arm.

In this exquisite little gem Silenus appears, cup in hand, telling some humorous story, replete with the wine-inspired wit, broad fun, and shrewd pithy remarks for which he was celebrated: the sly expression of his face is excellent; and his jolly corpulent figure reminds us at once of 'laughter holding both his sides;' while the sloping way in which he holds his cup shows either that it is empty, or that he is so tipsy, and so taken up with his story, which he is impressing with the action of his left hand more earnestly upon his hearers, as not to know that he is losing his wine; or we may suppose that, having drained the cup, he is exclaiming 'Papaiapœx!—what a sweet taste it has!'

The exceeding beauty of this exquisite little Cameo of the Grecian Falstaff, proves that it must have been engraved at a time when the arts in Bactria were in the very highest perfection; and consequently during the earliest period of the Bactrian power: and I think it highly probable that this gem may have been executed during the reign of Agathocles, whose coins usually exhibit devises belonging to the worship of Bacchus; and no doubt upon his seals and gems there were represented stories and figures emblematic of the same worship.

The coins of Agathocles, are, in my opinion, the most beautiful of the Bactrian series as works of art, and therefore I am inclined to place him before Euthydemus and Demetrius in the list of Bactrian Princes; and to assign him the country of the Parapamisades as his kingdom, Nysa or Dionysopalis for his capital, in which 'City of Dionysus' I suppose

that this beautiful Cameo of Silenus was engraved, at the same time that the Bacchic coins of Agathocles were united; that is about 240 B.C.

No. 9. A red cornelian, in the collection of Sir Alex. Burnes. It is of coarse execution, although its design is good; and is probably only a copy of a better gem.

No. 10. Likewise in the collection of Sir Alex. Burnes; this seal is of very inferior execution; the subject is similar to that of the coins of the Grecian colony of Falisci in Italy.

2. SASSANIAN.

No. 11. A red cornelian, from Amritsir, very thick, and with a hole near the top for suspension; the two streamers to the right are just the same as those that we see upon the Sassanian coins.

Nos. 12 and 13. These were sent to Mr. Prinsep by a gentleman residing in Persia; on No. 13 there is a Pehlvi inscription, but I am not able to offer any thing myself regarding its interpretation.

No. 14. In the possession of Colonel Stacy.

3. HINDU.

In the Journal of the Bengal Asiatic Society for 1837, at page 968 Mr. Prinsep says—'General Ventura has also brought down with him some beautiful specimens of seals of the same age, which I shall take an early opportunity of engraving and describing.' Unfortunately this opportunity was lost by Mr. Prinsep's sudden illness. He had however sent me an impression of the principal seal referred to, (No. 15) which I will now describe.

No. 15. A plain thin cornelian, bearing a beautiful female head to the right, the hair plaited in two braids over the fore part of the head, and gathered into a large bow at the back, where it is tied by a ribbon, the ends of which float behind. Her shoulder is covered by a robe, from the midst of which her right hand appears, holding a lotus flower before her face. Inscription below in ancient Sanscrit, Késava-Dásasya, (Seal) of Kesava-Das, the servant of Vishnu.

At what period this lovely gem was engraved can only be ascertained approximately by an examination of the forms of the Sanskrit characters; of which the letters k and d, and the inflected vowels are similar to those found in the inscription recording the repairs of the bridge near Iúnagurh, which we know must be subsequent to Asoka, or after B.C. 200; while the s and sy are of a later period, and similar to those found in the incriptions of the Gupta family, which, in my opinion, cannot be later than A.D. 400. The peculiar formation of the sy, I consider to be one of the

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best tests for ascertaining the age of a Sanskrit inscription, and therefore I feel inclined to believe that this seal is of the age of the Guptas. If the name may be considered as a title declaratory of the religion of the owner of the seal, we shall have a direct proof that Késava Dás (the servant of Vishnu) was of the Braminical faith; which, coupled with the probable age which I have already assigned to this seal, would fix the period of its execution to the reign of one of the earlier Vaishnava Guptas, and before the date of the Saiva Skanda Gupta. In the same way, taking the name as a declaration of the faith of Késava Dás, we have a clue to the owner of the beautiful face engraved upon this seal, who can be no other than Sai or Lakshmi, the consort of Vishnu, and the goddess of wealth, beauty, and prosperity, who is usually represented with a lotus in her hand. It is even possible that this seal may have belonged to Chandra Gupta himself; for the small copper coins of that Prince (vide vol. 5. pl. 38. Fig. 13 and 14. J.A.S. of Bengal) bear a similar bust with the hand raised before the face, and holding a lotus blossom; beneath which is the Prince's name. This remarkable coincidence of subject between the seal and the coins, coupled with the similarity of the characters of the inscription to those of the age of the Guptas, still further strengthens the opinion which I have expressed above, that this seal was engraved during the reign of one of the earlier Vaishnava Guptas, towards the end of the fourth century after Christ.

The lithographer has completely failed in copying my sketch of this beautiful seal: for, instead of a frowning elderly lady, the original represents a young and lovely girl with a gentle smile upon her face. In beauty and excellence of workmanship this gem rivals the finest coins of the Bactrian Mint; the face is exquisitely delineated, and the position of the hand peeping out from the loose robe or Hindu chadr, is graceful and easy. Unfortunately on the gold coins of the Guptas there are no busts with which we may compare the delicate engraving of this seal; in my opinion, however, it is far superior to many of the Gupta coins, and is perhaps even superior to the best of them; with the small copper coins no just comparison can be made, for they are few in number, and are all deficient in preservation.

No. 16. A brooch set round with turquoises, presented to Mr. James Prinsep by General Ventura. The engraving is from a rough penand-ink sketch by Mr. Prinsep—Below the head is an inscription in ancient Sanskrit, Sri Kodbharasya '(Seal) of Sri Kodbhara, the upholder or supporter of the fortress'. The initial Sri of this seal, which is of a later form than we find in the Gupta inscriptions, proves that

it must have been engraved subsequent to A. D. 450, the latest period which 1 can assign to any of the Gupta family.

No. 17. Likewise in the collection of General Ventura, there is a head upon this seal, but not so beautifully executed as that upon No. 15. The inscription, in ancient Sanskrit, is Ajita Vermmasya, (seal) of Ajita Vermma. From the forms of the characters I should say that this seal was of the age of the Guptas.

No. 18. A red cornelian, in the possession of Mr. B. Elliott of Patna. This seal is very neatly engraved, and is no doubt as old as the most flourishing period of the Guptas, and perhaps even older. The legend of this seal will be found engraved as No. 15. pl. 56, vol. 6. J. A. S. of Bengal, where Mr. Prinsep reads it as $Sri\ Lokan\'avasya$, (seal) of Sri Lokanava, or, the boatman of the world: but on the sealing-wax impression, which I have now before me, the legend is clearly $Sri\ Loka-chh\'avasya$, (seal) of Sri Loka-chhava, or the ornament of the world; from the auty or splendor.

No. 19. A chalcedonic agate, or Sulimáni, from Ujain, in the cabinet of the late Mr. James Prinsep. It is published in the J. A. S. of Bengal, vol 6. pl. 36, Fig. 23, where Mr. Prinsep reads the inscription as Sri Vati-khuddasya. '(Seal) of Sri Vati-khudd.'*

No. 20. A small agate, having the letters cut through an upper layer of milk white chalcedony. It was originally in Colonel Stacy's collection, and is evidently only a fragment, for on the left side marks of the cutting tools are still quite plain, while the other sides are polished. The left side is likewise perpendicular while the other sides are sloping towards the face of the seal. The remaining letters in ancient Sanskrit are.....ttasya. '(Seal) of......(Da) tta.

No. 21. In the possession of General Court. It is an oblong seal, with a recumbent animal above the inscriptions, which is in ancient Sanskrit, and reads *Tiva-datasya*. '(Seal) of Tiva Datta,' or, the giver of wisdom.

No. 22. A copper seal, originally in the collection of Colonel Stacy, having a Bull butting to the left, with an ancient Sanskrit inscription on two sides, which is probably Amogha-bhutasa. '(Seal) of Amogha-bhuta', or the mortal without vanity, that is, the humble individual. Now this the very title which Rajah Kunanda takes on his silver and cop-

^{*} Of the same age as this seal is another small oval one from Pesháwur, (brought to my notice by Dr. Chapman) bearing the legend Sri Kshatrapasya '(seal) of Sri Kshatrapa' or the fortunate satrap.

per coins (see Nos. 2, 3, 4 and 7, vol. 7, pl. 32, J. A. S. of Bengal) the whole inscription being Amogha-bhutasa-maharajasa-rajnya-Kunandasa, (coin) of the humble individual, the great king of kings, Kunanda, In the same way we find that the title of Aprati-ratha, or the invinciblein-his-chariot, which is applied in the Allahabad inscription to Samudra Gupta, is repeated upon his coins; -- and I have no doubt therefore that the epithet of Amogha-bhuta on this seal refers to Kunanda, and that the seal is of the same age as the coins. But on the coins the legends are in two different characters, of one common language; the legend of the obverse being in Indian Pali; thus proving that these two characters were in contemporaneous use, and likewise from the occurrence of the Indian Pali on the obverse, or principal side of the coin, showing clearly that Kunanda was a native of India proper, and not of India beyond the Indus where the Bactrian Pali characters prevailed. The same fact indeed may be gathered from the use of Indian Pali only on the seal. But that he possessed territory upon the banks of the Indus is undeniably attested by the use of the Bactrian Pali upon his coins, and by the localities in which they have been discovered, some of which are to the westward of the Indus. even as far as Kabul. Such being the extent of his territory, it now only remains to ascertain at what period a prince named Kunanda reigned over Northern India and the Punjab. In the first place then we know by the shape of the letter m that this seal must be anterior to the period of the Guptas, and the same may be said for the coins, on which also we have the additional evidence from the forms of the h and n. that Kunanda cannot be later than Asoka. The occurrence of Bactrian Pali on his coins is likewise in favor of this early date, for that character appears to have fallen into disuse towards the close of the second century after Christ, or perhaps a quarter of a century later, when the followers of the Brahminical faith, with the assistance of the Agniculas (whom I believe to have been the fire worshipping Sussanians) had gained the ascendancy in India over the votaries of Buddha. The use of the Pali termination Sa, for the Sanskrit Sya, proves that Kunanda was a Buddhist, and this is still further confirmed by his title, which whether it be read as Amogha-bhuta, the humble mortal, or as Amáya-bhuta, the guileless mortal, which is perhaps the preferable reading, is in strict accordance with the professed meekness and lowliness of a zealous Buddhist, and is at the same time utterly at variance with the grandiloquent titles assumed by the arrogant Brahmanists. We have thus deduced that Kunanda, who ruled over Northern India even beyond the river Indus, was a Buddhist Prince, and that he flourished certainly not later